



Space Day: Prospecting for Knowledge

1-Lunar Prospector model-building instructions

REQUIRED INGREDIENTS: both large (4 per model) and small marshmallows (3 per model); heavy (white) coverstock paper; scissors; hole punch; soda straws; two highlighter markers (one yellow and one blue); scotch tape, aluminum foil, 15-30 min of time.

NOTE: Large marshmallows = hydrazine fuel tanks, small marshmallows = science instruments, straws = spacecraft booms (masts), foil = thermal protective coating, triangle (cone) = antenna(e)

- Cut out all pieces (“1” and “2” rectangles, “tiled” larger rectangle, triangle and circle) with scissors
- Color large rectangle **blue** (with marker) and inside triangle of circle **yellow** (with marker). Note: Students can use their imaginations, if they want. Colors are suggestions only.
- Punch holes at indicated small circles (three in large rectangle and one inside circle (fold in half and punch in middle))
- Slightly overlapping, tape together two small rectangles, end-to end. Tape again to make a cylinder (slightly overlapping, approx. 1/2 inch)
- Wedge three **large** marshmallows, side-by-side and flat sides up, into cylinder
- Wrap entire cylinder, with marshmallows inside, in foil. Top and bottom should be also covered. Note: This does not have to be done precisely. Students, especially younger students, can just scrunch the foil around the cylinder, making sure that the marshmallows are held in place.
- Wrap large blue rectangle around foil cylinder and tape together, forming an outer cylindrical wrapping.
- Push straws into three holes in bottom of blue outside cylinder. (This is now the **bottom** of the spacecraft) Wedge one **large** marshmallow in between the three straw ends, inserting straw ends into middle marshmallow.
- Fold triangle into a cone, and push through hole in circle.
- Attach rolled over tape (one to two pieces) to underneath side of circle-cone and attach inside top of blue cylinder (opposite side of where the straws (booms) are) -- this is now the **top** of the spacecraft
- Attach **small** marshmallows (one each) to straws.
- Send to the Moon! (or eat the marshmallows)



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